

SERIAL NO. 09/753,869

DOCKET NO.: IBIS0036-101 (IBIS0339) PATENT

Amdt. Dated July 17, 2003

Reply to Office Action of 5/19/03

**REMARKS**

Claims 12 is pending in the present application. Claim 12 has been amended, support for which can be found at, for example, page 4, lines 20-30; page 5, lines 4-10, 20-30; page 6 lines 20-30; page 18, lines 12-13 of the specification. No new matter has been added. Upon entry of the present amendment, claim 12 will be pending. Applicants respectfully request that the amendments to the claims be entered into the record, because the amendments to the claim removes issues for appeal (*i.e.*, indefiniteness, anticipation and obviousness rejections), See, M.P.E.P. § 714.12.

**I. Summary of the Claimed Invention**

Applicants' invention is directed to, *inter alia*, a method of identifying a *virtual* compound at least through association of identifying characteristics with each component fragment that provides a part of the retrosynthetic analysis of the compound.

**II. Obviousness-Type Double Patenting**

Claim 12 is provisionally rejected under the doctrine of obviousness-type double patenting as allegedly being unpatentable over claims 8 and 9 of U.S. Patent No. 6,253,168 (the "168 patent"). Applicants traverse this rejection and respectfully request reconsideration because the claimed invention is not obvious in view of the 168 patent. The 168 patent does not claim the identification of constituent fragments of a source compound. Indeed, the preamble language referenced by the Examiner is not directed to identifying, *in silico*, each compound of a virtual library of compounds.

Claim 8 of the 168 patent corresponds to claim 16 as filed in application serial number 09/076,405 (the application that issued as the 168 patent). Included within the statement of the examiner's reason for allowance of claim 16 (as filed) is the statement; "...claim identifies the uniquely distinct feature of 'dissecting each of said compounds into fragments; linking together the fragments of each of the compounds; tracking the sequence of linkage for each compound.'"

Claim 9 of the 168 patent corresponds to claim 17 as filed in application serial number

**SERIAL NO. 09/753,869      DOCKET NO.: IBIS0036-101 (IBIS0339) PATENT**  
**Amdt. Dated July 17, 2003**  
**Reply to Office Action of 5/19/03**

09/076,405 (the application that issued as the 168 patent). Included within the statement of the examiner's reason for allowance of claim 17 (as filed) is the statement; "...claim identified the unique distinct feature of 'representing each of said fragments as a transformation wherein each transformation is a one to one link between a fragment and a reagent used to introduce said fragment into one of said compounds...'"

In the restriction requirement of May 20, 2002, the examiner said of Group II, "Claims 12, 13 (of this application) (are) drawn to method of identifying compounds" and further stated "Group II requires steps of adding fragments in synthetic rounds and tracking addition of fragments..."

In a further restriction requirement, the restriction requirement of Feb. 26, 2003, the examiner said of Group II.1 (claim 12 of this application) "Further, synthesis rounds in Group II.1 are combinations of fragments..."

In reference to double patenting of claim 12 over claim 8 of the 168 patent, the "steps of adding fragments in synthetic rounds and tracking addition of fragments" wherein the synthetic rounds are "combinations of fragments" (the examiner's comments pertaining to claim 12 of this application) clearly show that applicants are not claiming the same subject matters as "dissecting each of said compounds into fragments; linking together the fragments of each of the compounds; tracking the sequence of linkage for each compound." (the examiner's comments pertaining to the "uniquely distinct feature" of claim 8 of the 168 patent). Thus there can be no double patenting with respect to claim 8 of the 168 patent.

In reference to double patenting of claim 12 over claim 9 of the 168 patent, the "steps of adding fragments in synthetic rounds and tracking addition of fragments" wherein the synthetic rounds are "combinations of fragments" (the examiner's comments pertaining to claim 12 of this application) clearly show that applicants are not claiming the same subject matters as "representing each of said fragments as a transformation wherein each transformation is a one to one link between a fragment and a reagent used to introduce said fragment into one of said compounds.." (the examiner's comments pertaining to the "uniquely distinct feature" of claim 9

**SERIAL NO. 09/753,869      DOCKET NO.: IBIS0036-101 (IBIS0339) PATENT**  
**Amdt. Dated July 17, 2003**  
**Reply to Office Action of 5/19/03**

of the 168 patent). Thus there can be no double patenting with respect to claim 9 of the 168 patent.

For at least the reasons thus presented, Applicants respectfully request that the double patenting type obviousness rejection be withdrawn.

### **III. The Claimed Invention Is Not Obvious**

Claim 12 is rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over the STN Express User's Guide (version 4.0, 1996) (hereinafter, the STN reference"). The Office Action mistakenly asserts that it would have been *prima facie* obvious for one skilled in the art to have selected a compound from a virtual library of compounds, according to the teachings of the STN reference. Applicants traverse the rejection and respectfully request reconsideration because the STN reference does not disclose methods for dissecting *in silico* a compound of a library. Moreover, even if one of ordinary skill in the art were to use the STN reference as directed by the Examiner, the claimed method would not be followed.

The STN reference does not disclose methods of dissecting a virtual compound into constituent fragments. The STN reference does not disclose methods of characterizing constituent fragments according to reagents and conditions necessary to synthesize the source compound. Moreover, the STN reference does not disclose methods of storing, in sequential synthesis rounds, the constituent fragments, including associated chemical attachments sites, reaction conditions and reagents.

Thus, the claimed invention is not obvious in view of the STN reference. Accordingly, Applicants respectfully request that the rejection under 35 U.S.C. §103(a) be withdrawn.

### **IX. Conclusion**

In view of the foregoing, Applicants respectfully submit that the claims are in condition for allowance. An early notice of the same is earnestly solicited. The Examiner is invited to contact

**SERIAL NO. 09/753,869**

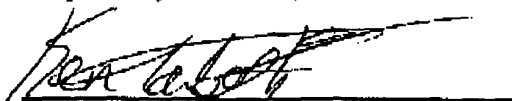
**DOCKET NO.: IBIS0036-101 (IBIS0339) PATENT**

**Amdt. Dated July 17, 2003**

**Reply to Office Action of 5/19/03**

Applicants' undersigned representative at (619) 685-1708 if there are any questions regarding Applicants' claimed invention.

Respectfully submitted,



**Ken Tarbet, Ph.D.**

Registration No. 43,181

Date: July 17, 2003

COZEN O'CONNOR  
1900 Market Street  
Philadelphia, PA 19103-3508  
Telephone: (619) 685-1708  
Facsimile: (866) 765-8603